



## NON-TITLE V TECHNICAL SUPPORT DOCUMENT

**PERMIT NUMBER:** 940141  
**BUSINESS NAME:** ME Global Inc  
**SOURCE TYPE:** Iron & Steel Foundry  
**PERMIT ENGINEER:** Robert Tate

<b>App. ID(s):</b>	407918
<b>Revision(s):</b>	2.1.0.0
<b>Revision Type(s):</b>	Non-Minor Revision
<b>Date Prepared:</b>	08/31/2015

<b>BACT:</b> Yes	<b>MACT:</b> Yes	<b>NSPS:</b> No	<b>SYNTH MINOR:</b> Yes	<b>AIRS:</b> Yes
<b>DUST PLAN REQUIRED:</b> Yes	<b>DUST PLAN RECEIVED:</b> Yes			
<b>O&amp;M PLAN REQUIRED:</b> Yes	<b>O&amp;M PLAN RECEIVED:</b> Yes			
<b>PORTABLE SOURCE:</b> No	<b>SITE VISIT:</b> Yes			

### PROCESS DESCRIPTION:

#### Process this revision 2.1.0.0:

The primary purpose of this revision is the inclusion of updated emission factors for the various operations based on performance testing conducted in December 2014. Secondly the purpose is the addition of two dust collectors on the mold sand mixers EQ 9 (60 tons per hour) and EQ 11 (80 tons per hour). The dust collectors will be added to the equipment list as EQ 65 for mixer EQ 9 and EQ 66 for mixer EQ 66. Otherwise the process description remains essentially the same as in the prior renewal 2.0.0.0 and is included in full below:

#### Prior Process Description 2.0.0.0:

ME Global, as a steel foundry produces steel casting by melting scrap, alloying, molding, pouring and finishing. The major processing operations where emissions might occur in a typical steel foundry are raw materials handling, metal melting, pouring (i.e. casting and shakeout), sand reclamation including mold and core production, and finishing and heat treatment.

Raw material handling includes receiving, unloading, storing, and conveying all raw material for the foundry. Fugitive emissions of particulate matter are generated in this operation.

Metal melting process operations are; scrap preparation, furnace charging in which metal, scrap, alloys, carbon, and flux are added to the Electric Arc Furnace, melting, back charging (which is the addition of more metal and possibly alloys), refining, oxygen lancing, and tapping the molten metal into a ladle or directly into molds. The emissions from this operation are particulate matter, hazardous metals, products of combustion that occur in the melting operations. They are collected in three different baghouses EQ 1 for the emissions directly from the melting furnaces (EAF) and EQ 2 and EQ 52 for the fugitive emissions that escape into the area around the EAF.

Pouring (casting and shakeout): When the melting process is complete, the molten metal is tapped and poured into a ladle. The molten metal may be treated in the ladle by adding alloys and/or other chemicals. The treated metal is then poured into molds and allowed to partially cool under carefully controlled conditions. When cooling is complete the casting and mold is sent to the shakeout units where the casting is separated from the mold (sand construction). The casting then proceeds to finishing and the sand is reclaimed to be used again in new molds. The emissions from these operations are particulate matter, hazardous air pollutants, and VOC. The particulate matter is collected in various baghouses used for fugitive emissions and direct emissions from the processing step. The baghouses EQ 27, EQ 28, EQ 31, discharge to the atmosphere and EQ 32 continues to discharge to Carbon Adsorption Units #1 and #2, EQ 33 where any VOC or odor are removed before being vented to the atmosphere.

Sand Reclamation including mold and core production are the next steps in the process. The molds and cores are used to make the internal features and shape the exterior of the castings. The sand is received from the east and west shakeout operations into the sand reclaimers which are vented to baghouses EQ 12 and EQ 13 and the sand continues through the reclamation process consisting of several silos for handling the sand, including thermal treatment, the emissions from which exhaust to baghouse EQ 15. Most of the sand silos/tanks are vented only to

bin vent type dust collectors to control the emissions from this operation. The sand silos also have operational overflow warning indicators that alert operators to stop the loading operation when the sand reaches a capacity that could adversely impact pollution abatement equipment. New sand also enters the process in these operations to make up for the sand losses that occur along the processing route. Finally the sand is sent to the mold/core production area where new molds are produced and then sent to the pouring area for new castings. Furan binder resin is used to help form the core/molds and there are VOC and HAP fugitive emissions from the process.

Finishing/Heat Treat: In this area the castings are received from the east/west shakeouts and cleaned using shot blasting, grinding, and arc washing which are exhausted to baghouses EQ 42, EQ 44, EQ 40, and EQ 49 for the removal of particulate matter. Heat treating is accomplished in several gas fired ovens; the products of combustion from which are vented to the atmosphere. In the past some painting was conducted on some of the castings but that is no longer performed and the paint booth has been removed from the process.

**NOTE: The numbers assigned to the equipment in the equipment list in EMS are also used to identify the equipment in the flow diagrams, the O&M Plans, and the permit conditions for this facility. Therefore, if any equipment numbers are changed in any of these documents it is necessary that they also be changed in all the documents so that they remain as accurate identifiers of the equipment. Because it is a time consuming task with the very real risk of not finding all the places where changes may need to be made, the better and more reliable approach is to maintain the current equipment numbers as they exist in this revision of the permit. Any new equipment that may be required in future revisions or renewals of this permit should be assigned new equipment numbers that do not cause any changes in the currently assigned equipment numbers. If any of the equipment items in the equipment list are removed from the list, EMS simply sorts and renumbers other equipment in the list which results in disagreement between the numbers in the equipment list and the other documents mentioned above. Therefore, if equipment is removed from the process it is recommended that it be noted in the equipment list that the equipment has been removed but leave its identifying number in the equipment list.**

#### **PERMIT HISTORY:**

Date Received	Revision Number	Description
12/07/2000	0.0.0.0	Submitted application for new permit for Iron and Steel Foundry in Tempe, AZ. making in Phoenix.
12/22/2009	1.0.0.0	Submitted application for renewal permit. Minor modifications 1.0.1.0 through 1.0.6.0 were processed and included as a part of the renewal permit. See the descriptions following below.
03/21/2007	1.0.1.0	Application 367019 received 3/21/07 for the installation of 1 natural gas heater, Aerovent 24-DAH rated at 680,000 Btu/hr to warm the patterns prior to use during the winter months and to replace a 4,000 cfm Wheelabrator dust collector with a 25,000 cfm MAC 2 Flow Cartridge Filter, Model 4M2F64, Dust Collector, EQ. #48, to better control welding and air arc fumes in the finishing department.
08/08/2007	1.0.2.0	Application 369548 received 8/8/07 for the installation of 3 natural gas heaters, Aerovent 24-DAH each rated at 680,000 Btu/hr, to accelerate drying of water based mold wash and the addition of 1 - 5,000 cfm Scientific Dust Collector, Model SPJ-84-X4RT10, EQ. #13, on the classifier for improved reliability.
09/25/2007	1.0.3.0	Application 370306 received 9/25/07 for the installation of an additional 100,000 CFM Torit Cartridge Dust Collector DFT 4-224, EQ. #2, for the melting department. This is the second of two Torit units which operate in parallel with and is similar to the existing Torit Collector and reduces the air to cloth ratio reducing the operating pressure drop thus increasing filter life and air volume exhausted. It uses the same blower and stack as the existing Torit.
01/03/2008	1.0.4.0	Application 372053 received 1/23/08 for the installation of 1 natural gas heater, Aerovent 24 – DAH rated at 680,000 Btu/hr to accelerate drying in the water based core wash.
04/09/2008	1.0.5.0	Application 373332 received 4/9/08 for the installation of 1 low temperature tempering oven, Wisconsin Oven 02147805, 2,000,000 Btu/hr to preheat castings

		prior to welding repair.
04/21/2009	1.0.6.0	Application 379685 received 4/21/09 for the installation of a Torit 208 Cartridge Filter Dust Collector, EQ. #51, 60,000 CFM to collect the emissions from Arc Furnaces #4 and #5. The addition of this unit reduces the air to cloth ratio reducing the operating pressure drop and increasing filter life and air volume exhausted
04/19/2011	1.0.7.0	Minor revision application 388853 to replace the sand cooler/classifiers associated with the two shakeout systems.
10/21/2011	1.0.8.0	Minor revision application 390783 for the addition of two new sand storage silos. One 200 ton sand storage tank and one 400 ton new sand tank. The sand will be pneumatically transported to the tanks. The tanks will be vented through Torit Bin Vent dust collectors only.
04/09/2012	1.1.0.0	Non-minor revision application 392537 to increase the production limit from 34,000 tons/year to 55,000 tons/year including the resultant emission limit increases.
05/21/2013	1.1.1.0	Minor revision application 396936 to remove permit conditions related to abrasive blasting because they don't conduct abrasive blasting and to remove the shakeout carbon absorption unit EQ 30 because they no longer use the chemicals that created the odor they were controlling.
05/29/2014	2.0.0.0	Submitted application 400644 for permit renewal. The renewal application indicates that (1) there are no operating scenarios different from that in the existing permit, (2) there are no modified, or reconstructed stationary sources or air pollution control equipment different from that in the existing permit, (3) there are no emissions units present that have not been correctly identified and defined in the existing permit, (4) there are no changes that trigger any other new applicable requirements and (5) the ownership of the facility has not changed since the permit was last issued or transferred. Will process accordingly.
06/08/2015	2.1.0.0	Submitted application 407918 for non-minor permit revision to incorporate the updated emission factors based on performance testing conducted in December 2014 and to add dust collectors EQ 65 and EQ 66 on the two mold mixers EQ 9 and EQ 11. EQ 65 is scheduled to be installed on EQ 9 this year and EQ 66 is scheduled to be installed EQ 11 next year.

#### **PURPOSE FOR APPLICATION:**

See history above.

#### **A. APPLICABLE COUNTY REGULATIONS:**

Rule 100: General Provisions and Definitions

Rule 200: Permit Requirements

Rule 220: Non-Title V Permit Provisions

Rule 280: Fee Table A

Rule 300: Visible Emissions

Rule 310: Fugitive Dust Emissions

Rule 312: Abrasive Blasting – Potentially applicable; however, the shot blasting done at the facility is conducted by throwing steel shot at the castings using a rotating wheel to throw the shot (called shot blasting). It is not propelled by compressed air or pressurized liquid as required by Rule 312 §202; therefore, by definition is not abrasive blasting. Accordingly, abrasive blasting was removed from the permit in minor revision 1.1.1.0.

Rule 320: Odors and Gaseous Air Pollutants

Rule 323: Fuel Burning Equipment from ICI sources

Rule 347: Ferrous Sand Casting

#### **B. APPLICABLE FEDERAL REGULATIONS:**

40 CFR 60, Subparts AA, AAa, and Na, New Source Performance Standards for Steel Plants were evaluated for applicability but after due consideration of these standards and evaluation of another NESHAP, 40 CFR 63,

Subpart YYYYYY for Steel Plants it was concluded that these Rules apply to Steel Plants not to Steel Foundries. This conclusion is based on the specific exclusion of foundries from the requirements of Subpart YYYYYY stated as follows: Electric arc furnace (EAF) steelmaking facility means a steel plant that produces carbon, alloy, or specialty steels using an EAF. This definition excludes EAF steelmaking facilities at steel foundries and EAF facilities used to produce nonferrous metals. While Subparts AA, AAa and Na didn't specifically exclude their application to foundries they were very specific as to the processes to which they do apply and none of this specificity included steel foundries such as the source. By making the distinction between Steel Plants and Steel Foundries in Subpart YYYYYY and Subpart ZZZZZ it seems clear that the rules for steel plants don't include rules for steel foundries. They are two distinct operations. See also EPA letter dated 2/27/2001 stating that Subpart AA was not intended to be applicable to foundries.

40 CFR 63, Subpart ZZZZZ National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries is applicable to M E Global. This is an area source standard for large and small foundries. Small foundries are those with under 20,000 tons of metal poured/year. The sources permit authorizes their operation at 55,000 tons of metal poured/year and as such they are designated as a large foundry and subject to the applicable requirements of subpart ZZZZZ. This designation does not require the source to obtain a Title V permit unless they are otherwise a major source of emissions.

40 CFR 63, Subpart XXXXXX National Emission Standards for Hazardous Air Pollutants for Nine Metal Fabrication and Finishing Source Categories was evaluated for applicability but was determined not to be applicable because the SIC for the source doesn't fall within the list covered by subpart XXXXXX.

**C. AIR POLLUTION CONTROL EQUIPMENT/EMISSION CONTROL SYSTEM(s):**

System description	Quantity	Comments:
Water Trucks	1	Dust Control Plan
Cyclone EQ 29 for Woodworking	1	O &M Plan submitted and approved
Baghouses EQ 1, EQ 2 and EQ 52 for Melt Shop.	3	O&M Plans submitted and approved
Baghouses EQ 27, EQ 28, EQ 31 for the Shakeout Area, EQ 32 for Pouring Bay.	4	O&M Plans submitted and approved.
Carbon Adsorption Units #1 and #2, EQ 33 for Pouring Bay.	1	O&M Plan submitted and approved
Baghouses EQ 12, EQ 13, EQ 15 for Sand System.	3	O&M Plan submitted and approved
Bin Vent Dust Collectors EQ 59(2), EQ 60(5) & EQ 62 (2) for Sand System Mold and Core Production.	9	O&M Plan submitted and approved
Baghouses EQ 40, EQ 42, EQ 44, EQ 49 for Finish and Heat Treatment.	4	O&M Plan submitted and approved
Baghouse EQ 65 for mold sand mixer EQ 9	1	O&M Plan submitted and approved.
Baghouse EQ 66 for mold sand mixer EQ 11.	1	O&M Plan submitted and approved.

An updated Dust Control Plan was submitted and approved as a part of the application for renewal 2.0.0.0 and is

recorded in SIRE.

#### **D. EMISSIONS:**

Immediately following is a summary of the current PTE emissions and facility wide allowable emissions. PTE calculations are based on the operational values and the emission factors determined in the performance testing conducted in December 2014 as shown in the embedded icon below and as shown in full display in the Appendix of this TSD. According to information submitted by the source in the application, its operating schedule is 16 hours/day, approximately 5 days/week, approximately 21 days/month and approximately 250 days/year. In the past in this permit, monthly limits have been used but Non-Title V permits no longer use monthly limits; therefore the monthly limits will no longer be used and they will be replaced with daily limits in accordance with the foregoing source operating schedule and the values in Table 1.

**TABLE 1. FACILITY WIDE EMISSIONS SUMMARY**

Pollutants	Facility Wide Annual PTE using 2014 EF & 55,000 tons poured metal/year	Facility Wide Allowable Daily Emissions (lbs)	Facility Wide Allowable Monthly Emissions (tons)	Facility Wide Allowable Annual Emissions (tons)
CO:	87.99	858	9.0	90
NOx:	48.43	458	4.8	48
SOx:	13.61	143	1.5	15
PM	25.32	477	5.0	50
PM10:	25.32	477	5.0	50
PM2.5:	25.32	477	5.0	50
VOC:	18.49	372	3.9	39
Benzene	0.35	9	0.09	0.9
Total Organic HAP	0.55	NA	NA	4.5
Total Inorganic HAP	0.05	NA	NA	NA



PTE APP 2.1.0.0  
R1.xlsx

#### **Discussion of Current Emissions, Grandfathered Emissions and BACT Considerations:**

In the performance testing conducted in December 2014 updated emission factors were determined for purposes of calculating actual emissions and the PTE. As shown in the summary above and in the spreadsheets shown in the icon and in the Appendix of this TSD the testing demonstrated that none of the pollutants, with the exception of NOx, were significantly increased from the values established as the emissions not subject to Rule 241.

While the increase in NOx PTE was substantial, it did not exceed the BACT trigger of 25 tons of NOx/year, but did exceed the current allowable emission limit of 35 tons of NOx/year. As a result it is necessary to increase the NOx PTE to 48.43 tons/year and allowable emission limit for NOx to at least 48.0 tons/year. This increase was due in large part to a substantial increase in the emission factors for NOx from the arc furnaces in the December 2014 performance testing. The source indicated that it was conducting its operations and maintenance on the same basis for all electric arc furnaces as it has in the past and could not offer an operational or maintenance explanation for the increase in emission factors between the two testing periods.

The source has been in operation since the 1950s and is an existing facility. Since that time the facility wide PTE has been calculated using emission factors that were perhaps the best available at the time but not necessarily satisfactorily verified. The emission rates have varied substantially and don't provide a reliable basis for determining the emissions that may be considered grandfathered prior to the promulgation of Rule 241. In December 2009 the facility conducted performance testing to establish verifiable emissions factors to be used to determine an accurate PTE for the facility. Based on the 2009 emission factors and the production rate of 55,000

tons/year the resultant PTE and allowable emission limits provided for in the permit at that time were considered to be the emissions generated prior to the promulgation of Rule 241 and thus to be used as the basis for the current and future BACT threshold determination under Rule 241.

Therefore, for purposes of BACT applicability for this revision and future determinations following are the PTE basis for and the allowable emission limits grandfathered in under Rule 241 due to the fact that the facility was in operation prior to the effective date of the Rule:

**TABLE 2. GRANDFATHERED EMISSIONS UNDER RULE 241**

Pollutants	Facility Wide Annual PTE using 2009 EF & 55,000 tons poured metal/year	Facility Wide Allowable Daily Emissions (lbs)	Facility Wide Allowable Monthly Emissions (tons)	Facility Wide Allowable Annual Emissions (tons)
CO:	88.05 tons	858	9.0	90
NOx:	24.02 tons	334	3.5	35
SOx	9.17 tons	143	1.5	15
PM	33.75 tons	477	5.0	50
PM10:	33.75 tons	477	5.0	50
PM2.5:	33.75 tons	477	5.0	50
VOC:	34.23 tons	372	3.9	39
Benzene	0.39 tons	9	0.09	0.9
Total Organic HAP	0.66 tons	NA	NA	4.5
Total Inorganic HAP	0.02 tons	NA	NA	NA

For example for NOx an increase of 150 lbs/day or 25 tons/yr above the values in Table 2 would trigger BACT. According to information submitted by the source in the application as already stated above its operating schedule is 16 hours/day, approximately 5 days/week, approximately 21 days/month and approximately 250 days/year. Based on that schedule BACT is therefore triggered at 334 lbs of NOx/day + 150 lbs/day = 484 lbs/day and 35 tons/year + 25 tons/year = 60 tons/year.

BACT for PM would be triggered at 477 lbs/day + 150 lbs/day = 627 lbs/day and 50 tons/year + 25 tons/year = 75 tons/year.

BACT for PM<sub>10</sub> would be triggered at 477 lbs/day + 85 lbs/day = 562 lbs/day and 50 tons/year + 15 tons/year = 65 tons/year.

BACT for VOC would be triggered at 372 lbs/day + 150 lbs/day = 522 lbs/day and 39 tons/year + 25 tons/year = 64 tons/year.

#### **E. HAP EMISSION IMPACTS:**

Based on the information provided in the permit application, the facility emits insignificant amount of HAPs; therefore, SCREEN modeling was not performed per the Department's HAPs policy.

#### **F. PERFORMANCE TESTING:**

Performance testing is required every five years for the facility and as provided in Permit Conditions 56 through 69 testing is due to be conducted during the period from November 1 through December 31 for each five year period.

#### **G. REGULATORY REQUIREMENTS AND MONITORING:**

Permit Conditions 1 - 5 were taken from the prior permit facility wide requirements and revised to include the current Appendix A emission factors established in the December 2014 performance testing and the increase in the NOx allowable emission limits. The prior permit was renewal permit 2.0.0.0 issued in February of 2015; therefore, no updating of conditions was performed.

Permit Conditions 6 – 20 were taken from the prior permit foundry operations and revised to include conditions for the mixer dust collectors.

Permit Conditions 21 – 23 were taken from the prior permit ECS requirements and revised to include the mixer dust collectors.

Permit Conditions 24 – 25 were taken from the prior permit fuel burning equipment requirements.

Permit Conditions 26 – 37 were taken from the prior permit fugitive dust from dust generating operations requirements.

Permit Conditions 38 was taken from the prior permit solvent cleaning requirements.

Permit Conditions 39 – 41 were taken from the prior permit woodworking requirements.

Permit Conditions 42 – 54 were taken from the prior permit performance testing requirements and revised to include conditions for the mixer dust collectors.

Permit Conditions 55 – 61 were taken from the current Sharepoint general conditions template without revision.

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# APPENDIX

EMISSION FACTORS	PM10	PM	CO	SOx	NOx	VOC	Antimony	As	Cd	Cr	Cu	Pb	Mn*	Ni	Phenol	Toluene	Xylene	Formaldehyde	Benzene	2,2,4-trimethylpentane	Performance Test Dates/Data Source
EQ 1 Dracco Baghouse - EAF 2, EAF 3, and Ladle Repair	0.26	0.26	1.37	0.04	0.49	0.03	6.5E-05	1.9E-04	7.3E-06	6.4E-05	5.6E-05	5.9E-05	1.4E-04	4.6E-05	0	0	0	0	0	0	Dec-14
EQ 52 East Torit - EAF 4, EAF 5	0.29	0.29	0.60	0.20	2.43	0.10	8.2E-05	2.2E-04	1.4E-05	1.7E-03	1.5E-04	1.7E-04	1.2E-03	9.8E-05	0	0	0	0	0	0	Dec-14
EQ 2 North Torit - General Melt Area	0.10	0.10	0.13	0.02	0.02	0.13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Dec-14
Natural Gas Burning (heat treat, ladle heaters, plant heat) (lb/MMCF)	7.6	7.6	84	0.6	100	5.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	AP-42 Table 1.4-2 (1-03-006-03)
EQ 65 (60 Mixer) EQ 66 (80 Mixer) No-Bake molding - mixing (lb/ton poured, VOC lb/ton sand)	0.5	0.5	0	0	0	0.0932	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PM Gatow 1971, VOC CERP 1411-113 2005
EQ 15 No-bake sand reclamation, Thermal Sand Reclaimer (lb/Ton)	0.25	0.25	3.33	2.40	0.38	0.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Dec-14
EQ 32 and 33 Pouring and Cooling (lb/Ton of metal poured into Molds)	0.05	0.05	0.84	0.02	0.01	0.11	0	0	0	0	0	0	0	0	0	6.6E-03	7.9E-04	0.0E+00	1.3E-02	0	Dec-14
EQ 28 West Mold Shakeout (lb/Ton of Sand)	0.013	0.013	0.01	0.006	0.00058	0.017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Jul 2013, CO Dec 2014
EQ 27 East Mold Shakeout (lb/Ton of Sand)	0.039	0.039	0.14	0.005	0.00071	0.036	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Jul 2013, CO Dec 2014
EQ 31 East and West Mold Shakeout ventilation (lb/Ton of Sand)	0.012	0.012	0.02	0.0049	0.000126	0.0148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Jul 2013, CO Dec 2014
EQ 13 East Torit Attrition	0.03	0.03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Dec-14
EQ 12 West Torit Attrition	0.01	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Dec-14
EQ 44 Shotblast - Jet Blast monorail blast machine (lb/Ton of Metal)	0.02	0.02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Dec-14
EQ 42 Shotblast-Finishing Collectors, Tableblast (lb/Ton of Metal)	0.20	0.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Dec-14
EQ 25 New Sand Storage, (lb/Ton of Metal)	0.54	0.54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	AIRS (3-04-007-06)
EQ 19 - 24 Sand Storage, Sand Silos	0.54	0.54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	AIRS (3-04-007-06)
EQ 40 Swing Grinding (lb/Ton of Metal)	0.03	0.03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Dec-14



Production Data			EMISSIONS (Tons/Year)							HAPS (minus Cu)														
NGT	35750	Tons/Year																						
Charge Tons	61000	Tons/Year																						
Gross Tons poured	55000	Tons/Year	lbs	50637.4	50637.4	175985.5	27225.6	96851.7	36980.9	4.3	12.2	0.6	37.2	5.3	5.9	30.1	3.9	0.0	360.8	43.5	0.0	704.0	0	
Production Days	250	Days/Year		EMISSIONS (Tons/Month)							HAPS (minus Cu)													
Monthly Production Days	21	Days this month																						
Hours per day	16	Hours																						
Heat Treat Gas Consumption	210	mmCF/Year																						
Process Heat (ladle heaters, process heating)	20	mmCF/Year																						
Tons of Sand Shaken Out West (Assume 60%)	72600	Ton Sand/Ton Metal		EMISSIONS (lb/Hour)							HAPS (minus Cu)													
Tons of Sand Shaken Out East (Assume 40%)	48400	Ton Sand/Ton Metal																						
Tons of New Sand	15000	2014 Ton																						
Parts Washer Solvent removed	0	Gallons/Year																						
Gasoline Removed	0	Gallons/Year																						
Thermfire Operation Total	2500	Hours																						

Hourly Emissions (lb Per Hour)	Hourly Process Rate	Monthly Process Rate	Annual Process Rate	Units	Control Efficiency	EMISSIONS										HAPS (minus Cu)													
						PM10	PM	CO	SOx	NOx	VOC	Antimony	As	Cd	Cr	Cu	Pb	Mn	Ni	Phenol	Toluene	Xylene	Formaldehyde	Benzene	2,2,4-trimethylpentane				
EQ 1 Dracco Baghouse - EAF 2, EAF 3, and Ladle Repair	10.2	3416.0	40666.7	Charge Tons		2.65	2.65	13.93	0.40	5.01	0.26	6.6E-04	1.9E-03	7.4E-05	6.5E-04	5.7E-04	6.0E-04	1.4E-03	4.7E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00				
EQ 52 East Torit - EAF 4, EAF 5	5.1	1708.0	20333.3	Charge Tons		1.46	1.46	3.05	1.02	12.37	0.53	4.2E-04	1.1E-03	7.1E-05	8.6E-03	7.6E-04	8.6E-04	6.1E-03	5.0E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00				
EQ 2 North Torit - General Melt Area	15.3	5124.0	61000.0	Charge Tons		1.55	1.55	1.94	0.25	0.25	1.94	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00				
Heat Treat Natural Gas	0.053	17.6	210.0	Million Cubic Feet		0.40	0.40	4.41	0.03	5.25	0.29	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00				
Process Heating (ladle heaters, plant heat)	0.079	1.7	20.0	Million Cubic Feet		0.60	0.60	6.67	0.05	7.94	0.44	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00				
EQ 65 (60 Mixer) EQ 66 (80 Mixer) No-Bake molding - mixing	30.3	10164.0	121000.0	Tons Poured into Molds		0.15	0.15	0.00	0.00	0.00	2.82	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00				
EQ 15 No-bake sand reclamation, Thermal Sand Reclaimer	3.0	630.0	7500.0	Tons Sand Reclaimed		0.76	0.76	10.00	7.20	1.14	1.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00				
EQ 32 and 33 Pouring and Cooling	13.8	4620.0	55000.0	Tons Poured into Molds		0.73	0.73	11.53	0.29	0.10	1.56	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.0E-02	1.1E-02	0.0E+00	1.8E-01	0.0E+00	0.0E+00				
EQ 28 West Mold Shakeout	18.2	6098.4	72600.0	Tons Poured into Molds		0.24	0.24	0.18	0.11	0.01	0.31	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00				
EQ 27 East Mold Shakeout	12.1	4065.6	48400.0	Tons Poured into Molds		0.47	0.47	1.71	0.06	0.01	0.44	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00				
EQ 31 East and West Mold Shakeout ventilation	30.3	10164.0	121000.0	Tons of sand processed		0.36	0.36	0.59	0.15	0.00	0.45	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00				
EQ 13 East Torit Attrition	12.1	4065.6	48400.0	Tons of sand processed		0.34	0.34	0.00	0.00	0.00	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00				
EQ 12 West Torit Attrition	18.2	6098.4	72600.0	Tons of sand processed		0.21	0.21	0.00	0.00	0.00	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00				
EQ 44 Shotblast - Jet Blast monorail blast machine	1.3	450.5	5362.5	Tons Metal		0.02	0.02	0.00	0.00	0.00	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00				
EQ 42 Shotblast-Finishing Collectors, Tableblast	5.8	1952.0	23237.5	Tons Metal		1.15	1.15	0.00	0.00	0.00	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00				
EQ 25 New Sand Storage	3.8	1260.0	15000.0	Tons new sand		2.03	2.03	0.00	0.00	0.00	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00				
EQ 19 - 24 Sand Storage, Sand Silos	30.3	10164.0	121000.0	Tons of sand processed	0.99	16.34	16.34	0.00	0.00	0.00	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00				
EQ 40 Swing Grinding	8.9	3003.0	35750.0	Tons Metal		0.24	0.24	0.00	0.00	0.00	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00				
TOTALS						29.68	29.68	53.99	9.55	32.08	10.03	1.1E-03	3.1E-03	1.5E-04	9.3E-03	1.3E-03	1.5E-03	7.5E-03	9.7E-04	0.0E+00	9.0E-02	1.1E-02	0.0E+00	1.8E-01	0.0E+00				

Monthly Emissions (Tons Per Month)	Hourly Process Rate	Monthly Process Rate	Annual Process Rate	Units	Contr of Effici ency	EMISSIONS																			
						HAPS (minus Cu)																			
						PM10	PM	CO	SOx	NOx	VOC	Antimony	As	Cd	Cr	Cu	Pb	Mn	Ni	Phenol	Toluene	Xylene	Formalde hyde	Benzene	2,2,4- trimethylpe ntane
EQ 1 Dracco Baghouse - EAF 2, EAF 3, and Ladle Repair	10.2	3416.0	40666.7	Charge Tons		0.44	0.44	2.34	0.07	0.84	0.04	1.1E-04	3.2E-04	1.2E-05	1.1E-04	9.6E-05	1.0E-04	2.4E-04	7.9E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EQ 52 East Torit - EAF 4, EAF 5	5.1	1708.0	20333.3	Charge Tons		0.24	0.24	0.51	0.17	2.08	0.09	7.0E-05	1.9E-04	1.2E-05	1.5E-03	1.3E-04	1.5E-04	1.0E-03	8.4E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EQ 2 North Torit - General Melt Area	15.3	5124.0	61000.0	Charge Tons		0.26	0.26	0.33	0.04	0.04	0.33	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Heat Treat Natural Gas	0.035	17.6	210.0	Million Cubic Feet		0.07	0.07	0.74	0.01	0.88	0.05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Process Heating (ladle heaters, plant heat)	0.079	1.7	20.0	Million Cubic Feet		0.01	0.01	0.07	0.00	0.08	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EQ 65 (60 Mixer) EQ 66 (80 Mixer) No-Bake molding - mixing	30.3	10164.0	121000.0	Tons Poured into Molds		0.03	0.03	0.00	0.00	0.00	0.47	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EQ 15 No-bake sand reclamation, Thermal Sand Reclaimer	3.0	630.0	7500.0	Tons Sand Reclaimed		0.08	0.08	1.05	0.76	0.12	0.11	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EQ 32 and 33 Pouring and Cooling	13.8	4620.0	55000.0	Tons Poured into Molds		0.12	0.12	1.94	0.05	0.02	0.26	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.5E-02	1.8E-03	0.0E+00	3.0E-02	0.0E+00
EQ 28 West Mold Shakeout	18.2	6098.4	72600.0	Tons Poured into Molds		0.04	0.04	0.03	0.02	0.00	0.05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EQ 27 East Mold Shakeout	12.1	4065.6	48400.0	Tons Poured into Molds		0.08	0.08	0.29	0.01	0.00	0.07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EQ 31 East and West Mold Shakeout ventilation	30.3	10164.0	121000.0	Tons of sand processed		0.06	0.06	0.10	0.02	0.00	0.08	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EQ 13 East Torit Attrition	12.1	4065.6	48400.0	Tons of sand processed		0.06	0.06	0.00	0.00	0.00	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EQ 12 West Torit Attrition	18.2	6098.4	72600.0	Tons of sand processed		0.03	0.03	0.00	0.00	0.00	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EQ 44 Shotblast - Jet Blast monorail blast machine	1.3	450.5	5362.5	Tons Metal		0.00	0.00	0.00	0.00	0.00	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EQ 42 Shotblast-Finishing Collectors, Tableblast	5.8	1952.0	23237.5	Tons Metal		0.19	0.19	0.00	0.00	0.00	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EQ 25 New Sand Storage	3.8	1260.0	15000.0	Tons new sand		0.34	0.34	0.00	0.00	0.00	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EQ 19 - 24 Sand Storage, Sand Silos	30.3	10164.0	121000.0	Tons of sand processed	0.99	0.03	0.03	0.00	0.00	0.00	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EQ 40 Swing Grinding	8.9	3003.0	35750.0	Tons Metal		0.04	0.04	0.00	0.00	0.00	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
<b>TOTALS</b>						2.13	2.13	7.39	1.14	4.07	1.55	1.8E-04	5.1E-04	2.4E-05	1.6E-03	2.2E-04	2.5E-04	1.3E-03	1.6E-04	0.0E+00	1.5E-02	1.8E-03	0.0E+00	3.0E-02	0.0E+00

Annual Emissions	Hourly Process Rate	Monthly Process Rate	Annual Process Rate	Units	Control Efficiency	EMISSIONS																				
						PM10	PM	CO	SOx	NOx	VOC	HAPS (minus Cu)												Formaldehyde	Benzene	2,2,4-trimethylpentane
EQ 1 Dracco Baghouse - EAF 2, EAF 3, and Ladle Repair	10.2	3416.0	40666.7	Charge Tons		5.29	5.29	27.85	0.81	10.03	0.53	1.3E-03	3.9E-03	1.5E-04	1.3E-03	1.1E-03	1.2E-03	2.8E-03	9.4E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
EQ 52 East Torit - EAF 4, EAF 5	5.1	1708.0	20333.3	Charge Tons		2.91	2.91	6.10	2.03	24.74	1.05	8.3E-04	2.2E-03	1.4E-04	1.7E-02	1.5E-03	1.7E-03	1.2E-02	1.0E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
EQ 2 North Torit - General Melt Area	15.3	5124.0	61000.0	Charge Tons		3.10	3.10	3.88	0.49	0.49	3.88	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Heat Treat Natural Gas	0.035	17.6	210.0	Million Cubic Feet		0.80	0.80	8.82	0.06	10.50	0.58	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Process Heating (ladle heaters, plant heat)	0.079	1.7	20.0	Million Cubic Feet		0.08	0.08	0.84	0.01	1.00	0.06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
EQ 65 (60 Mixer) EQ 66 (80 Mixer) No-Bake molding - mixing	30.3	10164.0	121000.0	Tons Poured		0.30	0.30	0.00	0.00	0.00	5.64	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
EQ 15 No-bake sand reclamation, Thermal Sand Reclaimer	3.0	630.0	7500.0	Tons Sand Reclaimed		0.95	0.95	12.50	9.00	1.43	1.25	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
EQ 32 and 33 Pouring and Cooling	13.8	4620.0	55000.0	Tons Poured into Molds		1.47	1.47	23.05	0.58	0.20	3.13	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.8E-01	2.2E-02	0.0E+00	3.5E-01	
EQ 28 West Mold Shakeout	18.2	6098.4	72600.0	Tons Poured into Molds		0.47	0.47	0.36	0.22	0.02	0.62	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
EQ 27 East Mold Shakeout	12.1	4065.6	48400.0	Tons Poured into Molds		0.94	0.94	3.42	0.12	0.02	0.87	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
EQ 31 East and West Mold Shakeout ventilation	30.3	10164.0	121000.0	Tons of sand processed		0.73	0.73	1.17	0.30	0.01	0.90	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
EQ 13 East Torit Attrition	12.1	4065.6	48400.0	Tons of sand processed		0.67	0.67	0.00	0.00	0.00	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
EQ 12 West Torit Attrition	18.2	6098.4	72600.0	Tons of sand processed		0.42	0.42	0.00	0.00	0.00	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
EQ 44 Shotblast - Jet Blast monorail blast machine	1.3	450.5	5362.5	Tons Metal		0.04	0.04	0.00	0.00	0.00	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
EQ 42 Shotblast-Finishing Collectors, Tableblast	5.8	1952.0	23237.5	Tons Metal		2.29	2.29	0.00	0.00	0.00	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
EQ 25 New Sand Storage	3.8	1260.0	15000.0	Tons new sand		4.05	4.05	0.00	0.00	0.00	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
EQ 19 - 24 Sand Storage, Sand Silos	30.3	10164.0	121000.0	Tons of sand processed	0.99	0.33	0.33	0.00	0.00	0.00	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
EQ 40 Swing Grinding	8.9	3003.0	35750.0	Tons Metal		0.48	0.48	0.00	0.00	0.00	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
TOTALS						25.32	25.32	87.99	13.61	48.43	18.49	2.2E-03	6.1E-03	2.9E-04	1.9E-02	2.7E-03	2.9E-03	1.5E-02	1.9E-03	0.0E+00	1.8E-01	2.2E-02	0.0E+00	3.5E-01	0.0E+00	



## NON-TITLE V COMPLETENESS DETERMINATION CHECKLIST

**Items 1-15 Front page:** Items 1 to 15 (14 for Renewals) must be completed.

*Notes to engineer:*

- For renewal applications the source must either answer 'No' to questions 2-5 or submit an application for a permit modification.
- Item 8: Many applicants do not know the SIC code or NAICS code for their industry. For a new application the code can be obtained by doing an on-line search. <http://www.osha.gov/pls/imis/sicsearch.html>
- Items 5, 7 and 14: These may be the same for many applicants.

Complete: ☒ Incomplete: ☐

**Item 16:** A simple site diagram has been included, preferably on a standard size paper. Detailed blueprints or construction drawings are not required.

Complete: ☒ Incomplete: ☐ N/A: ☐

**Item 17:** A simple process flow diagram on a standard size paper is preferred. A process flow diagram may not be needed for some small businesses.

Complete: ☒ Incomplete: ☐ N/A: ☐

**Item 18:** An O&M plan is required only for a control device. An O&M plan is not required for a spray booth. Instead of including the O&M plan with the application, an applicant may submit it after receiving the permit.

Complete: ☒ Incomplete: ☐ N/A: ☐

**Item 19:** A dust control plan, if required, must accompany the permit application. The plan will be reviewed and approved by the dust compliance group.

Complete: ☒ Incomplete: ☐ N/A: ☐

**Item 20:** The applicant needs to complete only those sections of the permit application that are applicable.

Complete: ☒ Incomplete: ☐ N/A: ☐

*Notes to engineer:*

- Concerning Section Z: Many applicants will not be able to perform these engineering calculations. We will accept the permit application with a blank Section Z.

Instructions for completing Sections A, B, C, D, E-1, E-2, F, G, H, I, J, K-1, K-2, K-3, K-4, L, M, X-1, X-2, Y and Z of the permit application are included at the beginning of each section and are self-explanatory.

In general, a material safety data sheet (MSDS) is required for each chemical used, stored or processed at the facility. Exceptions are for very common materials, such as gasoline, diesel, acetone, etc.

Business name: ME Global Inc

Permit number: 940141

Completeness review completed.

Application determined to be: Complete: ☒ Incomplete: ☐

Permit Engineer: Robert Tate

Date: 08/31/2015